

**Alaska Division of Homeland Security and Emergency Management
Hazard Mitigation Grant Program**



Project Application

Applicant Alaska Railroad Corporation (ARRC)

Project Location ARRC MP58.6 to 59.4, Skookum Creek – Placer River Drainages South of Portage
(street, city, borough, and state)

Project Title (descriptive) ARRC MP 59 Area Flood Mitigation Activities

Estimated Project Cost (total) \$ 1,188,300

THIS SECTION FOR STATE USE ONLY

FEMA-DR 1796 AK

- ☒ Standard HMGP
☐ HMGP 5% Initiative
☐ Other _____
☒ Initial Submission
☐ Resubmission
☒ Completeness Checklist
☐ State 409 Plan (SOA)
☒ Eligible Applicant

Project Type(s):

- ☐ Acquisition
☐ Relocation
☐ Demolition
☐ Elevation
☒ Drainage
☐ Wind Retrofit
☐ Seismic Retrofit
☐ Phase Funded
☐ Construction
☐ Engineering Study
☐ Other, Outreach, etc.

Community NFIP Status: N/A

- ☐ Participating Community
ID #: _____
☐ CRS Participant
☐ In Good Standing
☐ Sanctioned

State Reviewer:

Brent Nichols

Reviewer Phone #:

428-7085

Date Received:

11/9/09

Reviewer Fax #:

428-7009

Reviewer E-mail:

brent.nichols@alaska.gov

Federal Share (Typically 75% of project cost):	\$ <u>891,225</u>	\$
Other Federal Share:	\$ <u>N/A</u>	\$
State Share (Typically 25% of project cost):	\$ <u>N/A</u>	\$
Applicant's Share (Any amount available to supplement the project cost): <u>ARRC</u>	\$ <u>297,075</u>	\$
Other Non-Federal Shares (Describe):	\$ <u>N/A</u>	\$
Total funds required to complete project:	\$ <u>1,188,300</u>	\$

INTRODUCTION

The Hazard Mitigation Grant Program (HGMP) assists States and local communities in implementing long-term hazard mitigation measures following a major disaster. The funding for this program is based on a 75/25 Federal and State share. Further information concerning Alaska's involvement in the HMGP can be found in the current Alaska Hazard Mitigation Grant Administrative Plan at: www.ak-prepared.com/plans/mitigation/mitigationplan.htm or can be obtained by calling the Alaska State Hazard Mitigation Officer (SHMO), Division of Homeland Security & Emergency Management (DHS&EM), at 800-478-2337 or 907-428-7000.

PROJECT ELIGIBILITY CRITERIA:

DHS&EM, as the grantee, is responsible for ensuring applicants meet the eligibility requirements for sub-grantees and for selecting eligible projects for which funding is requested. Additionally, DHS&EM may require the applicant to hire a project manager or contractor to oversee the project.

Before you begin to fill out the attached application forms check your proposed project for eligibility in the HMGP. This information can also be found in the State Hazard Mitigation Plan at the above referenced web address.

- YES: ☒ NO: ☐ **1. HMGP Projects must be from an eligible applicant.** (i.e., Municipality/City/Special Districts/Tribe/Eligible Nonprofit Agency or Organization).
- YES: ☒ NO: ☐ **2. HMGP Projects must comply with the State and Local Hazard Mitigation plans** developed as a requirement of the Disaster Mitigation Act of 2000, Section 322 for the declared disaster (see the Alaska State Hazard Mitigation Plan and applicable Local Hazard Mitigation Plan).
- YES: ☒ NO: ☐ **3. HMGP Projects must meet all applicable codes and standards** for the project locale (i.e., construction, public notifications, etc.).
- YES: ☒ NO: ☐ **4. HMGP Projects must have a direct beneficial impact upon the designated disaster area**, whether or not the project is located in the designated area.
- YES: ☒ NO: ☐ **5. HMGP Projects must comply with 44 CFR part 9, Floodplain Management and Protection of Wetlands; and 44 CFR, part 10, Environmental Considerations.**
- YES: ☒ NO: ☐ **6. HMGP Projects must solve a problem independently or constitute a functional portion of a solution where there is assurance that the project as a whole will be completed. Projects that merely identify or analyze hazards or problems are not eligible.**
- YES: ☒ NO: ☐ **7. HMGP Projects must be cost effective** and substantially reduce the risk of future damage, hardship, loss, or suffering resulting from a major disaster.
- YES: ☒ NO: ☐ **8. HMGP Projects must provide the best solution.** Subgrantees must demonstrate that after consideration of a range of options for the mitigation measure, it has been determined that the proposed project is the most practical, effective, and environmentally sound solution.
- YES: ☒ NO: ☐ **9. HMGP Projects must contribute to a long-term solution** that is the most practicable. Ideally, it should integrate hazard mitigation principles with existing programs and overall community planning.
- YES: ☒ NO: ☐ **10. HMGP Projects must consider long-term effects.** Projects should address, when applicable, long-term changes to the areas and entities it protects, and ensure manageable future maintenance and modification requirements.
- YES: ☒ NO: ☐ **11. HMGP Projects must address a problem** that has been repetitive or that possesses a significant risk if left unsolved.
- YES: ☒ NO: ☐ **12. HMGP Projects must cost less** than the anticipated value of the reduction in both, direct damage and subsequent negative impacts to the area if future disasters occur.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

ALASKA STATE MITIGATION GOALS

Does your project fulfill the following Alaska State Hazard Mitigation Plan's listed goals?

- YES: ☒ NO: ☐ 1. Reduce threat to life and safety posed by disasters.
- YES: ☒ NO: ☐ 2. Reduce the vulnerability of disaster damage to existing development, emphasizing public property.
- YES: ☒ NO: ☐ 3. Avoid damage to future public and private development.
- YES: ☒ NO: ☐ 4. Support the State's role in disaster planning and management to reduce costs from disaster losses and disaster relief efforts.

SIGNATURE OF AUTHORIZED AGENT:

The undersigned has the authority to commit the jurisdiction to completing this project and submits this application for financial assistance under the Alaska State Hazard Mitigation Grant Program. Further, the undersigned certifies that the applicant will fulfill all requirements of the State and Federal Hazard Mitigation Grant Program.

Print Name: Thomas E. Brooks

Signature: Thomas E. Brooks

Date: November 9, 2009

Title: Vice President, Engineering and Chief Engineer

Information to assist in filling out this application:

Completely fill out this application and the accompanying *Project Schedule, Timeline, and Milestone Worksheet*. Provide a clear and concise Scope of Work. The areas within the electronic version of this application will expand to ensure you have sufficient space to completely provide detailed information for your proposed project.

If using the paper form of this application, please attach additional sheets as necessary and identify the applicable sections that the additional information addresses. Example: 2.1.1. Scope of Work: -----

Note: When filling out your application, if an item clearly does not pertain to your project please write in "NA" or "None". If you have any doubts, you can call us and we will work with you to find the correct answer.

WHEN COMPLETED, THIS APPLICATION SHOULD BE RETURNED TO:

State of Alaska
Alaska Division of Homeland Security and Emergency Management
State Hazard Mitigation Officer (SHMO)
HMGP Application
P.O. Box 5750
Fort Richardson, AK 99505-5750

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

1. APPLICATION DATA

1.1. Project Title: ARRC MP59 Area Flood Mitigation Activities

1.2. Applicant Identification:

1.2.1. Name of Subgrantee Organization/Agency: Alaska Railroad Corporation

1.2.2. Check one:

☒ State Government ☐ Local Government ☐ Recognized Indian Tribe ☐ Private Non-Profit

1.2.2. Type of Organization/Agency: _____

Check one:

☐ Borough ☐ Municipality ☐ Tribal ☐ Private Non-Profit ☐ Special District

X Other: State-owned railroad

1.2.3. Tax ID Number: 92-0020624

1.2.4. Flood Insurance PS Code: (If Known) N/A

1.3. Applicant's Primary Representative: (The applicant's agent, project manager, or official contact).

Name: ☐ Ms. ☒ Mr. ☐ Mrs. Thomas E. Brooks

Title: Vice President, Engineering and Chief Engineer

Address: 327 W. Ship Creek Ave, Anchorage, AK 99501

Business Phone: 907-265-2456

FAX Number: 907-265-2638

Email Address: brookst@akrr.com

Applicant's Alternate Representative:

Name: ☒ Ms. ☐ Mr. ☐ Mrs. Kathleen Rogge

Title: Grants Management Officer

Address: 327 W. Ship Creek Ave, Anchorage, AK 99501

Business Phone: 907-265-2433

FAX Number: 907-265-2638

Email Address: roggek@akrr.com

Applicant's Chief Financial Officer:

Name: ☐ Ms. ☒ Mr. ☐ Mrs. William O'Leary

Title: Vice President, Finance/Chief Financial Officer

Address: 327 W. Ship Creek Ave, Anchorage AK 99501

Business Phone: 907-265-2516

FAX Number: 907-265-2638

Email Address: olearyb@akrr.com

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

1.4. Overview of Past Damages:

Provide a detailed past history of damages in the area including approximate costs. Include information for Presidential or Federal level disasters as well State or local level declarations. **Attach any supporting documents.** Costs should include damages to structures and infrastructure in the project area as a result of the hazard. Additional costs should include the cost to the local government to respond to victims of the hazard in the project area, any interruption to local businesses, losses of public services, and costs for temporary housing of the affected population etc.

Note: Acquisition, Relocation, Elevation, or Demolition Project:

Complete a listing of specific damages to each property on a separate spreadsheet and include as an attachment.

Date	Level of Event	Damages	Indirect costs (describe)
[e.g.] 10/7/89	50 year flood or 4 foot above the road	\$195,000 in damages to 16 homes in project area	Evacuation of 58 people
[e.g.] 8/18/92	2 feet above the average first floor of the affected homes	\$1,895,000 in damages to 23 homes in project area	Evacuation of 108 people

Date	Level of Event	Type or Extent of Damages	Indirect Costs
May 12/13 2005	Erosion of track-grade at MP59.4	\$2,468.12 in damage for 75 tons of riprap	N/A
July26/Aug5/Sep28 2006	Erosion of track grade at MP59.6 and MP59.5	Combined cost of \$35,159.46 in damage for 675 tons of riprap	N/A
Various before April 2007	Erosion of track grade and overtop of track at MP59 to MP60	Combined cost of \$117,710.31 to provide for riprap embankment armoring, raising th track and bridge at MP59.6	N/A
July 22, 2009	Erosion of embankment adjacent to Placer River between MP58 and MP58.5	Combined cost of \$120,495.99 to place 600 feet of riprap to protect the embankment adjacent to the Placer River	Passenger service between Seward and Anchorage disrupted for a day.

See attached Project Scope and Narrative.

See attached detailed cost data for each event.

1.5. Provide information on projects linked to Public Assistance Project Worksheets (PWs):

Relevant information from a Federally declared disaster, such as the Disaster Project Worksheet may provide data so that the applicant does not have to duplicate its efforts. Additionally, a previous environmental review may have been performed and could possibly be used as a reference, reducing the review time.

1.5.1. PW Number(s) and Supplements: _____

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

1.5.2. Was the proposed hazard mitigation project a component of a Public Assistance PW? If so, what was the State or federal determination regarding its eligibility? ☐ Yes ☐ No

Explain:

1.6. Hazards to be mitigated: (Select the type of hazard (s) the proposed project will mitigate)

- ☒ Flood
 ☐ Wildfire
 ☐ Seismic
 ☐ Volcano
 ☐ Snow Avalanche
 ☐ Tsunami
☐ Weather
 ☐ Ground Failure
 ☒ Erosion
 ☐ Drought
 ☐ Technological
 ☐ Economic
☐ Other (list) _____

1.7. **Project Budget:** Provide details of all allowable costs for the project. Project cost information is used for the required Benefit-Cost-Analysis (BCA). Organizations having the expertise and capability are required to accomplish the BCA. Reasonable project cost estimates are essential. Projected or increased costs due to a delayed project starting date should be built into the categories line item. However; **do not** include project Administrative Allowances or contingency costs in the budget. (Please attach any spreadsheets or supporting project cost documentation along with the HMGP Project Application.)

1.7.1. **Materials and Equipment:** (Expand as needed)

Item	Dimension	Quantity	Unit Cost	Total Cost

1.7.2. **Labor:** (Include equipment costs -- please indicate all "soft" or "in-kind" matches. Annotate if you included an operator in the equipment cost. If you list a crew, include number (#) of personnel. Expand as needed)

Description of Activities	Hours	Rate	Cost

1.7.3. **Fees Paid:** (Include any other costs associated with the project. Expand as needed)

Description of Task	Hours	Rate	Cost

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

See attached detailed cost estimate for this project.

Notes:

1. Bridge, Concrete Ballast Deck (CBD) cost of \$12,500 per linear foot of bridge is derived from ARRC historic costs for similar bridges.
2. Design and Support costs are derived from historic project tracking costs.
3. Escalation is the standard FEMA 7% for award in 2010 and construction in 2011.
4. Indirects are the standard audited and approved indirect charge of 16.5% against labor and other personnel costs ARRC uses for overhead and administration.

Total Estimated Cost of Project: \$1,188,300.00

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

2. PROJECT ALTERNATIVES

2.1. Primary Project Requested: Provide a detailed proposed project Scope of Work. Also, explain how the proposed project will solve the problem(s) or reduce the hazard's effects and risks identified in Sections 1.4 and 1.6. Use separate pages as needed to ensure a complete project description.

2.1.1. Scope of Work

Project Scope: ARRC is proposing to construct a new bridge in the vicinity of MP 59.4 (final location to be determined in final engineering); improve ditch gradients adjacent to the embankment and raise the track; and protect the embankment with armor rock where needed (MP58.6 to MP58.7 along the Placer River and MP58.9 to MP59.1 adjacent to the Skookum Creek flood plain) to prevent high water event embankment erosion. The proposed bridge will add hydraulic capacity for the existing flow regime and, as Skookum Creek continues to migrate southward, the proposed bridge will play a larger role in passing water and relieve storm water ponding and retention at MP59.4. The work is expected to be conducted in 2010, and 2011.

See attached project description and narrative: MP59.4 Bridge Installation & MP58.6 to MP59.4 Track Embankment Shoulder Protection

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

2.1.2. Project Location:

Fully describe the location of the proposed project. Describe the area and/or population affected or protected by this project. Include the location if possible (street address with numbers or neighborhood, city, borough w/ zip codes, Lot, Block or Survey). **Provide GPS reading (Lat/Long) of the project site in degrees decimal minutes to 5 places if possible, i.e.: 61.12345N 161.12345W.** *This allows the environmental review to catalog and reference other disaster related projects. Data may be found in Public Assistance (PA) Project Worksheets (PW).*

2.1.2.1. Current Site Location:

Location: Latitude: 60.78000N

Longitude: 148.99333W

Description: The project area is located on the ARRC main track just south of Portage, AK (ARRC Mile Post (MP) 62) in the drainages of Skookum Creek and the Placer River. The particular area is between ARRC MP 58.5 and MP59.5.

2.1.2.2. New Site Location: (if this is a relocation)

Location: Latitude: Not applicable

Longitude: _____

Description:

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

2.1.3. Population and Structures Affected: Indicate the approximate number of people affected by this project to include residents, customers, commuters, or visitors, etc. Provide the **number** of each type of structure (listed below) in the project area. Include all structures directly affected in project area.

- _____ Number of people affected
- _____ Residential properties
- _____ Businesses / Commercial properties
- _____ Public buildings
- _____ Schools
- _____ Hospitals / Medical clinics
- _____ Houses of Worship

☒ Other (List): Alaska Railroad maintrack between Seward, Alaska and Anchorage, Alaska

2.1.4. Project Eligibility: Using the eligibility criteria listed in the Introduction section of this document, list any eligibility issues or exceptions.

List: N/A

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

2.1.5. Project Objective: Describe what mitigation benefit you hope to gain by doing this project.

Explain how this mitigation project meets the objectives of the State or Local Hazard Mitigation Plan.

You can find the plan at: <http://www.ak-prepared.com/plans/mitigation/mitigationplan.htm>

Scope of Work: The ARRC embankment from Mile Post (MP) 58.6 to 60.1 is located east-southeast of Anchorage just south of Portage. The track embankment is positioned across the toe of an alluvial fan with the glacially-fed Skookum Creek traversing the fan and ultimately draining through the railroad embankment into the Placer River. This stream carries a large amount of sediment down its channels and deposits this bed load on the east side of the railroad embankment, causing aggradation and channel changes. ARRC has repeatedly suffered the threat and reality of embankment erosion, washouts and high water problems in this stretch over the last 30 years, more frequently in the last decade.

The railroad's concern is that the existing capacity of our structures is not adequate to handle those annual events, they certainly will not withstand a more severe event. It is not feasible to control the flow direction and channels of Skookum Creek, so we plan to control how and where we pass the water through the embankment. Adding embankment shoulders provides room to add more ballast and adds mass to the embankment; that, along with armor rock, will protect it from future washouts. Raising the height of the track will prevent overtopping of the track and allow for a ditch-line gradient to be established that will guide the water to the bridges.

No state or local Flood Hazard Mitigation Plan exists for the site. The area is within the far south boundary of the Municipality of Anchorage Flood Insurance Study, but the river systems are not addressed by the study.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

2.2. Alternative Project:

Describe an alternative project. This project should be the next best solution if the primary alternative is not accomplished. This project could be an entirely different mitigation method or a significant modification to the design of the current proposed project. Please include a Scope of Work, engineering details (if applicable), estimated budget, and the impacts of this alternative. Provide enough detail to describe the project for the evaluation panel to decide the best course of action for the State. Also, explain how the proposed project will solve the problem(s) or reduce the hazard's effects and risks described in Section 2.1.

Use separate pages as needed to ensure a complete project description.

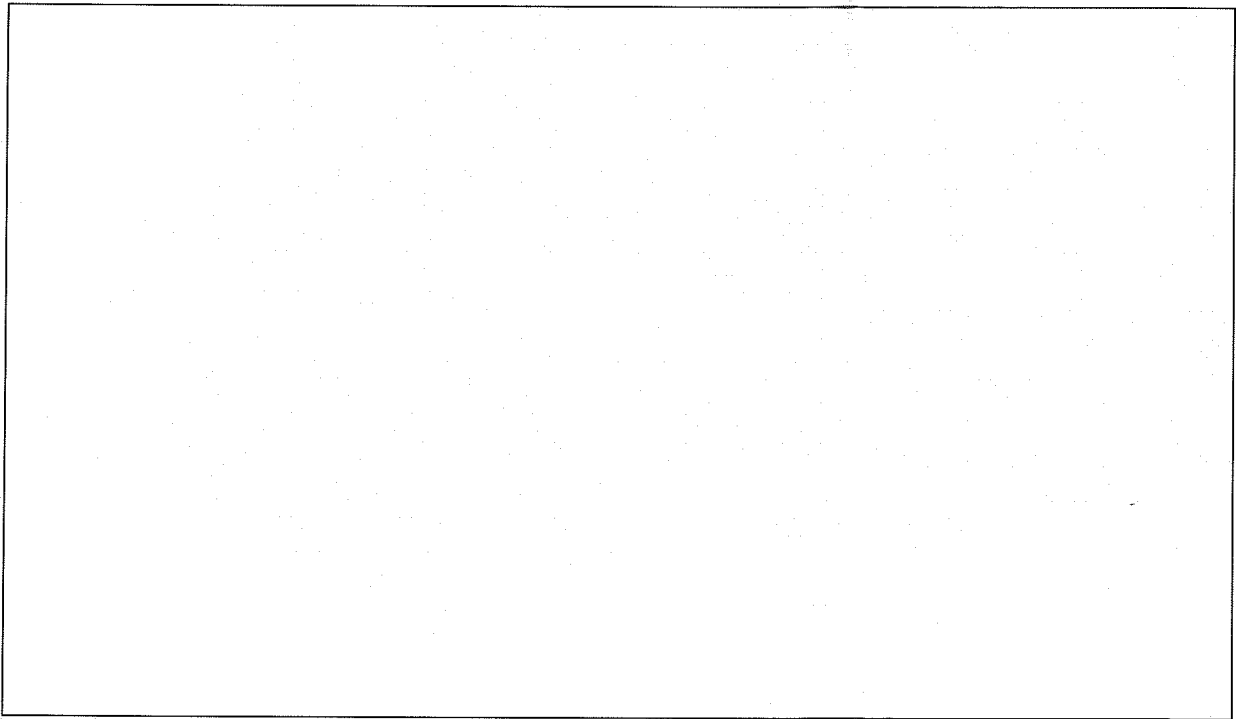
2.2.1. Scope of Work: ARRC looked at two other alternatives:

Alternative 1. Re-channel Skookum Creek to original flow under existing bridge at MP. 59.6. This alternative required work outside of AKRR right of way and was rejected by the following agencies: National Marine Fisheries Service, Alaska Dept. of Fish and Game and the U. S. Forest Service.

Alternative 2. Install the bridge at MP59.4 and replace the culverts at MP59.12 (60"dia) and MP59.14 (48" dia) with two 96" culverts. No riprap of embankment. Alternative rejected because the erosion safety provided by riprap was not available. Larger culverts would still clog with high water moved gravels requiring clearing. No protection would be provided to the grade adjacent to the Placer River at MP58.5

Alternative 3. Install the bridge at MP59.4, replace the culverts at MP59.12 and MP59.14 as described above and install riprap at three locations: MP58.6 to MP58.7 (600LF) adjacent to the Placer River, MP58.9 to MP59.14 (1,200 LF) adjacent to the Skookum Ck south channel, and MP59.14 to MP59.4 (1,350 LF). This alternative was rejected because of prohibitive costs.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009



2.2.2. Project Location:

Fully describe the location of the proposed project. Describe the area and/or population affected or protected by this project. Include the location if possible (street address with numbers or neighborhoods, city, borough w/ zip codes, Lot, Block or Survey). **Provide GPS reading (Lat/Long) of the project site in degrees decimal minutes to 5 places if possible, i.e.; 61.12345N 161.12345W.** This allows the environmental review to catalog and reference other disaster related projects. Data may be found in Public Assistance (PA) Project Worksheets (PW).

2.2.2.1. Site Location:

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

New Location: Latitude: _____

Longitude: _____

Description: See attachments

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

2.2.2.2. Site Location: (if this is a relocation)

New Location: Latitude: Not applicable

Longitude: _____

Description:

2.3. No Action Alternative: State or explain what the effect(s) will be if neither the primary nor the secondary project is funded.

Alternative 3. Do nothing. This alternative continues the current potential for grade erosion and resultant weakening, if not failure, of the track grade. Each year of the last six years this location has suffered some type of damage that had to be immediately repaired.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

Describe what will result: Adoption of the do nothing alternative results in continued piece-meal repair of damages and subjects the railroad embankment to the potential of catastrophic failure during a flood of 20, 50 or 100 year storms and resulting failures.

2.4. Maps: In certain cases when there are no maps available, substitute with an overview photo, drawing or sketch. Ensure it is legible, shows magnetic north, and has major landmarks noted for orientation. Two maps must be provided with your application. One must show the general location of the project site and the other must show the specific project site.

2.4.1. Map Depicting Project Site: (check the box to indicate what type of map is attached)

2.4.1.1. ☐ City or Borough scale map showing the entire project area with the project site and structures marked on the map.

2.4.1.2. ☒ USGS 1:24,000 topographical map with project site marked on the map.
(Map depicting relationship to existing features – natural and otherwise)
1. Rivers, lakes, streams, wetlands, saltwater, etc.
2. Geologic features, steep slopes, unstable areas
3. Roads, bridges, buildings, etc.

2.4.1.3. ☐ For acquisition or elevation projects, include a copy of the Parcel Map (Tax Map, Property Identification Map, etc.) with each property in the project clearly marked on the map. Use SAME ID number as in the property worksheet.

On one or both of the maps and depending on the type of project, you may depict multiple requirements that are listed below, instead of a separate map for each.

2.4.2. Provide a map showing the new construction or elevation of structures.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

2.4.2.1. Show where materials will be staged.

2.4.3. Provide a map showing the old and new site for any structure relocation.

2.4.3.1. Show the route of movement on the map with a dashed line and label it.

2.4.3.2. Show the new location on the map.

2.4.4. Provide a map showing where the demolished structure is located.

2.4.4.1. Show where the old foundation materials and debris will be disposed of.

2.4.4.2. Show where any hazardous materials are located or disposed of.

2.4.5. Provide a map showing where any wetlands are located.

2.4.6. Provide a map showing where any historic or archaeological sites are located.

2.5. Photos, Sketches, Drawings, Engineer Designs, etc: (*Two copies* for each project site)

These help clarify the project setting and the potential impacts of the project on the environment (soils, vegetation, hydrology, wildlife) and they assist in understanding the written description of the project, especially if contours and elevations are provided. If photos are provided, then FEMA may not need to conduct a site visit, thereby, reducing the review time. Include ALL engineering calculations and quantity determinations for this project. These are in addition to any map substitutions.

2.5.1. Attach overview photographs. See attached project description and narrative.

2.5.2. Provide a sketch of the proposed foundation.

2.6. Flood Insurance Rate Map (FIRM):

Attach a copy of the panel(s) from the FIRM and the Floodway Map; if they are available, with the project site and structures marked on the map (FIRMs are available from the Department of Commerce, and Economic Development, State Floodplain Manager (DCCED/NFIP). Maps can also be ordered from the Map Service Center at 1-800-358-9616. For more information about FIRMs, contact your local agencies or visit the FIRM site on the FEMA web page at:

<http://msc.fema.gov/webapp/wcs/stores/servlet/FemaWelcomeView?storeId=10001&catalogId=10001&langId=-1> . These maps can be downloaded.

2.6.1. Using the FIRM: Determine the flood zone(s) of the project site (Check all zones in the project area).

☐ VE or V 1-30

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

- ☐ AE or A 1-30
- ☐ AO or AH
- ☐ A (no base flood elevation given)
- ☐ B or X (shaded)
- ☐ C or X (un-shaded)
- ☐ Floodway
- ☐ Coastal Barrier Resource Act (CBRA) Zone
(Federal regulations strictly limit Federal funding for projects in this Zone; coordinate with your state agency before submitting an application for a CBRA Zone project)
- 2.6.2. ☐ Flood Hazard Boundary Map (FHBM) for your area with the project site and structures marked
- 2.6.3. ☐ Army Corp of Engineers, USGS, or other sources that may have a map of the floodplain.
- 2.6.4. ☒ No FIRM, FHBM or other floodplain map available

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

3. ENVIRONMENTAL CONCERNS

All projects must comply with the National Environmental Policy Act (NEPA). FEMA is responsible for preparing the necessary documentation; however the applicant is required to provide the necessary data. Provide a clear and concise description of the environmental concerns and impacts associated with the "Preferred Alternative Project".

The following types of projects **do not** require Environmental Documentation:

- Development of Mitigation Plans (Use separate HMGP Planning Application)
- Inspection and monitoring activities
- Studies involving only staff time and funding
- Training activities using existing facilities

Provide the following information to assist the Environmental Review Team in performing reviews for compliance with all applicable laws and regulations. Providing this information up front will expedite the team's consultation process with Other Federal Agencies (OFA) allowing them to complete their review in as short a time as possible. If this information is not provided, the team will need to contact the applicant, which could delay mitigation for the next disaster. The review process can not begin until this information is received. Supplying this information with this application will allow more time for completing the environmental compliance review.

Construction projects require certain environmental documentation depending upon the project type and its potential effects on the physical, biological, and construction environment. This information ***must*** be provided to FEMA before funding will be awarded! Coordinate with the State Historic Preservation Officer (SHPO) regarding all cultural (archeological and historical) resources.

The various types of projects and the required environmental documentation are:

3.1. Warning Systems, Shutters, and Communication Projects:

Provide the SHPO with:

- a description of the project referencing structure or site addresses
- several original photographs of the project site and adjacent area/structures

NOTE: See sections 2.4 through 2.6.4 and 3.4.

3.2. Acquisition/Demolition and Elevation Projects:

Residential Sites require coordination with the SHPO regarding cultural resources (archeological and historical).

Provide the SHPO with:

- a description of the project referencing structure or site addresses
- several original photographs of the project site and adjacent area and structures

Commercial/Industrial Sites also require:

- Coordination with the State Environmental Protection Agency (or equivalent) regarding hazardous waste and toxic materials

NOTE: See sections 2.4 through 2.6.4 and 3.4.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

3.3. Residential Acquisition/Relocation and Storm Water Management Projects: (Road/Bridge/Culvert Repair, Retention Ponds, and Drainage)

Coordinate with the following Federal and State agencies:

Provide the SHPO with:

- Several original photographs of the project site and adjacent area and structures
- State Environmental Protection Agency (or equivalent) regarding required permits for erosion and sediment control, storm water management, water and air quality
- State Environmental Protection Agency (or equivalent) regarding hazardous and toxic materials
- U.S. Army Corp of Engineers District regarding Individual (404 Wetlands) Permit or approval under an existing Nationwide Permit
- U.S. Fish and Wildlife Service regarding Federal Threatened and Endangered Species
- State Fish and Game Agency regarding fish and wildlife
- State Natural Heritage Agency regarding State Threatened and Endangered Species

NOTE: see section 3.4.

3.4. Additional Documentation:

- *If the project involves five or more acres of land* – provide a National Pollutant Discharge Elimination System (NPDES) permit from the U.S. Environmental Protection Agency
- *If the project is located outside of town/city limits* - provide documentation from the USDA Natural Resources Conservation Service (Prime, Unique or other Important Farmlands)
- *If the project is located in a coastal area* provide letters from the:
 - State Coastal Management Agency (Coastal Zone Management Act)
 - U.S. Fish and Wildlife Service (Coastal Barrier Resources Act and Coastal Barrier Improvement Act)
 - U.S. Dept. of Commerce National Marine Fisheries Service (Commercial fishing and breeding grounds)
- *If the project will affect any low-income or minority groups in the project area* – provide applicable Environmental Justice information (census, economics, housing and employment)

NOTE: Contact the SHMO if you wish FEMA to provide additional Environmental Technical Assistance. The SHMO contact information is located on page 3 of this application.

3.5. Project setting and background information:

Please provide the following information to help the environmental reviewer determine the appropriate level of review needed for this project.

3.5.1. What are the ages of the structures involved in this project?

List: The proposed project does not involve work on existing structure. A letter requesting concurrence with No Historic Properties Affected has been sent to SHPO and is included as an attachment to this application.

3.5.2. What are the ages of the structures in the remainder of the community?

List: NA. Surrounding area is undeveloped.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

3.5.3. Describe the project site(s).

The project area is in the Skookum Creek and Placer River watersheds. Skookum Creek is a glacial-fed stream on an alluvial fan with the ARRC embankment across the toe of the fan. This stream carries a large amount of sediment down its channels and deposits this bedload on the east side of the railroad embankment, causing aggradation and channel changes. ARRC has two bridges that historically passed all the water for Skookum Creek (Br 59.9 and Br 59.6), which ultimately drains into the Placer River. Two 8-foot-diameter culverts were installed in 2007 at approximately MP 59.5 to pass some of the flow from a new channel of Skookum Creek that was undermining the railroad embankment. At the south end of the project limits (approximately MP 58.6) the Placer River runs adjacent to the railroad embankment on the west side, which results in erosion during high water events.

3.5.4. Describe the terrain and vegetation at the project site(s) (flat, gently sloping south, etc).

Describe: Gently sloping alluvial fan (from east to west) with gravel bars and riparian vegetation. The landform on the east side of the railroad grade is at least 3 feet higher than on the west side.

3.5.5. What is the elevation in feet above Mean Sea Level (MSL) at the project site(s)?

List: 57.1 feet

3.5.6. Describe the neighborhood or community setting.

Describe: NA. Surrounding area is undeveloped.

3.6. Does the Project Description show what the applicant proposes to do?

FEMA and Other Federal Agencies (OFA) need this information to conduct their reviews. Are there any wetlands (USACE) or endangered species (USFWS, NMFS) impacted? Please provide the following information to help the environmental reviewer determine and analyze the potential impacts of the project.

Answer only questions applicable to this project.

3.6.1. Why is this project a benefit?

Explain:

3.6.2. Why is elevating, relocating, or acquiring these structures appropriate? (Define why one method is more preferred over the others.)

Explain:

3.6.3. Is future construction allowed within this area?

Explain:

3.6.4. Describe the type, size, and dimensions of the structures identified in this project.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

Describe:

3.6.5. Describe the type of service this (these) facility (ies) provide(s) if applicable. (home, business, city, office, etc.)

Describe:

3.6.6. Provide cost of relocating, replacing, or decommissioning utilities and/or fuel tanks etc.

List:

3.6.7. Provide a narrative describing the type of foundation(s) proposed.

List:

3.6.8. Provide the location information of where the families will be housed during construction.

List:

3.6.9. What special conditions or construction is required due to permafrost or other environmental factors?

Explain:

3.6.10. Describe any ancillary structures or equipment that may also need to be elevated, relocated, acquired, and/or demolished.

Describe:

3.6.11. Describe any clearing or grubbing activities that will take place.

Describe:

3.6.12. Describe the site control activities.

Describe: ARRC will use Best Management Practices during construction and will apply for coverage under EPA's General Permit for Stormwater Discharges From Construction Activities (including preparation and implementation of a Stormwater Pollution Prevention Plan), as necessary depending on disturbance area.

3.6.13. Describe the construction methodology and sequence, the types of equipment used, and materials needed. (Ensure that this information matches items in 1.8, Project Budget and Attachment 1 Timelines)

Describe:

3.6.14. List all other project types that may have an effect on your current project.

List:

3.7. Supplemental Information: The following information would be helpful in facilitating a quicker review; however, it is not needed to begin the review process. If it is not provided, the Environmental Reviewer will obtain the information.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

3.7.1. Floodplain/Wetland information

This information is necessary to show compliance with the Executive Orders on Floodplain Management and Wetlands.

3.7.2. Are Wetlands located in the project area?

☐ No ☒ Yes Explain: The project area is within the Skookum Creek and Placer River watersheds, which are classified by National Wetland Inventory mapping as riverine and scrub-shrub wetlands (see attached wetland map).

3.7.3. Critical Action: Describe what critical tasks have to take place to complete the project. (For

example: 1. Acquire a US Army Corps of Engineers (USACE) permit, 2. Remove hazardous materials, 3. Demolish structures and transport debris to the landfill located at 61.12345N 121.12345W, etc.)

List and describe the critical actions involved with this project:

ARRC has existing permits (USACE, Fish Habitat, and Coastal Consistency Determination—attached) to raise the track between MP 58.9 and 60.1 and widen the embankment shoulders. These permits will be modified as necessary and/or new permits will be obtained to construct the bridge at 59.4, improve the ditch gradients adjacent to the embankment, and reinforce the embankment where necessary.

3.7.4. Public Notice: Was there any public involvement in developing the project or selecting the site? How did you notify the public of the project?

☐ No ☒ Yes Explain: Public notices associated with the permitting process for the proposed project will be done by the regulatory agencies and are considered sufficient public involvement for this project.

3.8. Endangered Species Information: (Provide if applicable)

This information is necessary to show compliance with the Endangered Species Act. The local government may know what types of projects have previously occurred in the vicinity of the proposed project. Incorporate information obtained from past projects and required consultations with other federal agencies into your environmental review. (Check any that apply)

- 3.8.1. ☒ U.S. Fish and Wildlife Service (Terrestrial & Aquatic)
3.8.2. ☒ National Marine Fisheries Service (Marine & Anadromous)
3.8.3. ☐ State Fish and Wildlife Service

ARRC consults regularly with the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service (NMFS) regarding threatened or endangered species or critical habitat within ARRC's ROW or land reserves. Based on this consultation and review of the most current threatened and endangered species list for Alaska, there are no species listed that occur within inland areas of ARRC's ROW or land reserves. Therefore, the proposed project would have no effect on populations or habitat of species listed as threatened or endangered under the

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

Endangered Species Act (ESA). Agency correspondence is included as an attachment to this application. Impacts to Essential Fish habitat are not anticipated as a result of the project; however, the NMFS will be contacted during project permitting and ARRC would comply with all permit stipulations to mitigate potential impacts.

3.9. National Historic Preservation Act, Section 106 information: (Provide if applicable)

This information is necessary to show compliance with the National Historic Preservation Act (NHPA). Contact the State Historic Preservation Office to obtain information on any potential historic, cultural, or archaeological site within or near the project.

3.9.1. Are there any historic, archaeological, or cultural sites in or near the project area?

☐ No ☒ Yes Explain: Several ARRC Bridges near the Area of Potential Effects are listed in the Alaska Historic Resource Survey database. One site, Bridge 58.7 (SEW - 1362), is within the APE. The proposed project does not involve impacts to any of these bridges. In addition, ARRC is included in the database (SEW-0029). A letter requesting concurrence with No Adverse Affect to Historic Properties Affected has been sent to SHPO and is included as an attachment to this application.

3.9.2. Are there any structures older than 50 years?

☐ No ☒ Yes Explain: ARRC bridges and mainline. See Section 3.9.1.

3.9.3. Does the project involve modification or alteration to undisturbed land?

☒ No ☐ Yes Explain: The proposed project is in an area that has been previously disturbed by emergency flood control actions (e.g., embankment armoring, culvert installation, ditch maintenance, etc.).

3.9.4. Have you made contact with the State Historic Preservation Officer?

☐ No ☒ Yes Explain: A letter requesting concurrence with No Adverse Affect to Historic Properties has been sent to SHPO and is included as an attachment to this application.

3.10. Environmental Information: Provide the following information to assist the environmental reviewer and prevent the duplication of work.

3.10.1. Environmental or SEPA documents:

☒ No ☐ Yes Explain:

3.10.2. Geological studies:

☒ No ☐ Yes Explain:

3.10.3. Biological assessments:

☒ No ☐ Yes Explain:

3.10.4. USACE or State permits:

☐ No ☒ Yes Explain: Existing permits are included as an attachment to this application. These permits will be modified as necessary and/or new permits will be obtained to construct the bridge at 59.4, improve the ditch gradients adjacent to the embankment, and reinforce the embankment where necessary.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

4. CHECKLIST OF ATTACHMENTS REQUIRED

The following is a list of *required* attachments or documentation that will be used to process your Application. The paragraph numbers below correspond with their location within the Application. Upon review, it may be determined that additional information is required. Check all items that you have enclosed.

Supporting Documentation to Attach: Only enclose documents that pertain to your application.	Enclosed
1.4. Overview of Past Damages (reports, photos, news clippings, etc.)	<input type="checkbox"/>
1.5. Project Assistance Worksheet (s) (copy of the narrative project summary sheet)	<input type="checkbox"/>
2.4.1. Project site maps (1 Overview and 1 Specific site)	<input type="checkbox"/>
2.4.1.1. City or Borough	<input type="checkbox"/>
2.4.1.2. USGS topographical	<input checked="" type="checkbox"/>
2.4.1.3. Parcel Map (Tax map, Property ID map, etc.)	<input type="checkbox"/>
2.4.2. New Construction or Elevation depiction	<input type="checkbox"/>
2.4.3. Structure Relocation depiction	<input type="checkbox"/>
2.4.4. Demolished Structure depiction	<input type="checkbox"/>
2.4.5. Wetlands	<input checked="" type="checkbox"/>
2.4.6. Historic or Archaeological site depiction	<input checked="" type="checkbox"/>
2.5. Photos, Sketches, Drawings, engineer Designs, etc. (2 copies)	
2.5.1. Overview Photograph	<input type="checkbox"/>
2.5.2. Sketch of proposed foundation	<input type="checkbox"/>
2.6. Flood Insurance Rate Map (FIRM)	<input type="checkbox"/>
2.6.2. Flood Hazard Boundary Zones	<input type="checkbox"/>
2.6.3. US Army Corps of Engineers (USACE), USGS, flood or erosions maps	<input type="checkbox"/>
Other source maps: IE; Flood debris line depiction, etc.	<input type="checkbox"/>
3.3. Residential Acquisition / Relocation and Storm Water Management Projects	
Photographs	<input type="checkbox"/>
Environmental Protection Agency permits	<input type="checkbox"/>
3.4. Additional Environmental Information	
National Pollution Discharge Elimination System (NPDES) permit (EPA)	<input type="checkbox"/>
US Department of Agriculture (USDA) Natural Resources documentation	<input type="checkbox"/>
State Coastal Management Agency letter	<input checked="" type="checkbox"/>
US Fish and Wildlife Service letter	<input checked="" type="checkbox"/>
Environmental Justice Information	<input type="checkbox"/>
3.7. Supplemental Information	
3.7.1. Floodplain / Wetland information	<input checked="" type="checkbox"/>
3.7.4. Public Notice documentation	<input type="checkbox"/>
3.10. Environmental Information	
3.10.1 Environmental or State EPA documents	<input type="checkbox"/>
3.10.2. Geological Studies	<input type="checkbox"/>
3.10.3. Biological Assessments	<input type="checkbox"/>
Benefit Cost Analysis (BCA) Worksheet (contact DHS&EM if not able to accomplish a BCA)	<input type="checkbox"/>
Deed or Proof of Ownership of building or property	<input type="checkbox"/>
Other:	<input type="checkbox"/>

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

5. Maintenance Agreement

Only applicants whose ~~proposed~~ project involves the retrofit or modification of existing public property or whose proposed project would result in the public ownership or management of property, structures, or facilities, should sign the following agreement prior to submitting their application to FEMA.

(NOTE: those applicants whose project only involves the retrofitting, elevation, or other modification to private property where the ownership will remain private after project completion DO NOT have to complete this form.)

The _____, State of Alaska, hereby agrees that if
(organization)

it receives any Federal aid as a result of the attached project application, it will accept responsibility, at its own expense if necessary, for the routine maintenance of any real property, structures, or facilities acquired or constructed as a result of such Federal aid. Routine maintenance shall include, but not be limited to, such responsibilities as keeping vacant land clear of debris, garbage, and vermin; keeping stream channels, culverts, and storm drains clear of obstructions and debris; and keeping retention ponds free of debris, trees, and woody growth.

The purpose of this agreement is to make clear the Subgrantee's maintenance responsibilities following project award and to show the Subgrantee's acceptance of these responsibilities. It does not replace, supersede, or add to any other maintenance responsibilities imposed by Federal, State and Local laws or regulations and which are in force on the date of project award.

Print Name: _____

Signature: _____

Title: _____

this _____ (day) of _____ (month), _____ (year).

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

6. Elevation, Acquisition, Relocation, and/or Demolition Certification

Each applicant whose proposed project involves elevation, relocation, acquisition, and/or demolition of one or more residential structures shall sign the following certification:

I, _____, _____, of
(print name) (title)
_____, certify that all owners of property
(organization)

identified in this project have been contacted and have voluntarily expressed a willingness to participate in the proposed elevation, relocation, or acquisition of his or her property.

Additionally, the _____ understands that any and
(organization)

all property acquired under the Hazard Mitigation Grant Program will be maintained by the applicant as open space. All property acquired in this project will be governed by the following guidelines from the Code of Federal Regulations, Section 209.10:

Subgrantees must enter into an agreement with the State, with the written concurrence of the FEMA Region X Director that provides the following assurances:

The following restrictive covenants must be conveyed in the deed to any property acquired, or accepted; or from which structures are removed.

- 6.1. The property must be dedicated and maintained in perpetuity for uses compatible with open space, recreational, or wetlands management practices; and
- 6.2. No new structure(s) will be built on the property except as indicated in this paragraph:
 - 6.2.1. A public facility that is open on all sides and functionally related to a designated open space or recreational use;
 - 6.2.2. A public rest room; or
 - 6.2.3. A structure that is compatible with open space, recreational, or wetlands management usage and proper floodplain management policies and practices, which the Director approves in writing before the construction of the structure begins.
 - 6.2.4. In general, allowable open space, recreational, and wetland management uses include parks for outdoor recreational activities, nature reserves, cultivation, grazing, camping (except where adequate warning time is not available to allow evacuation), temporary storage in the open of wheeled vehicles that are easily movable (except mobile homes), unimproved, permeable parking lots and buffer zones. Allowable uses generally do not include walled buildings, flood reduction levees, highways or other uses that obstruct the natural and beneficial functions of the floodplain.
- 6.3. Following completion of the acquisition project, no application for future disaster assistance will be made for any purpose with respect to the property to any Federal entity or source, and no Federal entity or source will provide such assistance, even for the allowable uses of the property described above.
- 6.4. Any future structures built on the property according to paragraph 6.1 and/or 6.2 of this section, must be located to minimize the potential for flood damage; floodproofed; or elevated to the Base Flood Elevation plus one foot of freeboard.
- 6.5. The subgrantee or other public property owner will seek the approval of the State grantee agency and the Region X Director before conveying any interest in the property to any other party. The subgrantee or other public entity or qualified private non-profit organization must retain all development rights to the property.
The FEMA Region X Director will only approve the transfer of properties that meet the criteria identified in this paragraph.
- 6.6. In order to carry out tasks associated with monitoring, the subgrantee, or the State have the right to enter the parcel, with notice to the parcel owner, to ensure compliance with land use restrictions.

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

Subgrantees may identify the open space nature of the property on local tax maps to assist with monitoring. Whether the subgrantee obtains full title or a conservation easement on the parcel, the State must work with subgrantees to ensure that the parcel owner maintains the property in accordance with land use restrictions.

Specifically, the State may:

- 6.6.1. Monitor and inspect the parcel every two years and certify that the owner continues to use the inspected parcel for open space or agricultural purposes; and
- 6.6.2. take measures to bring a non-compliant parcel back into compliance within 60 days of notice.
- 6.7. Only as a last resort, we reserve the right to require the subgrantee to bring the property back into compliance and transfer the title and easement to a qualified third party for future maintenance.
- 6.8. Every 2 years on October 1st, the subgrantee will report to the State, certifying that the property continues to be maintained consistent with the provisions of the agreement. The State will report the certification to FEMA.

Certified this _____ day of _____, 20____

By _____
(print name and title of responsible official)

(signature of responsible official)

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009

Attachment 1

Work Schedule, Timelines, and Milestones

HMGP Mitigation Project Title: ARRC MP 59 Area Flood Mitigation Activities

Grant Performance Period Dates: January 1, 2010 through December 31, 2012

- 1.1. **Estimated Starting Date:** October 1, 2010, or within days after final project approval. (Please explain if more than sixty (60) days): Work will begin at end of passenger season and progress at low water and over the winter season. If not complete by April 30, 2011 work will cease and resume on following October 1, 2011.
- 1.2. **Estimated Completion Date:** December 31, 2011, or within 16 months after project initiation. (If not complete by April 30, 2011 work will cease and resume on following September 15, 2011.)
- 1.3. **Provide a General Outline of the Work Schedule Necessary to Complete This Project:** Use Attachment 1 to list "Timelines and Milestones" for each item in the Scope of Work (expand as necessary). This application *must* include a comprehensive work schedule that clearly describes project milestones and shows the anticipated flow of the project from the time of initiation through completion.

Item 1: Construction Preparation

Task	Timelines	Milestones	Estimated Costs
Final permitting with ADF&G, USFS, etc Material ordering Final Engineering of bridge	Spring/Summer 2010	1. Pertinent permits and permit modifications of existing permits 2. Pipe pile, CBD sections 3. Completed final design of bridge	1. \$33,000.00 2. \$250,000.00 3. \$23,000.00

Item 2. Riprap Installation

Task	Timelines	Milestones	Estimated Costs
Install Riprap within ADF&G fish windows Conduct ditch gradient work Project and Construction Management	October 2010	1. Use ditch spoil to widen embankment before riprap 2. Install all riprap at both locations 3. Construction management and QA work	1. \$50,000.00 2. \$220,000.00 3. \$20,000.00

Item 3: Install pipe piles and pier caps

Task	Timelines	Milestones	Estimated Costs
Build Bridge at MP59.4 Construction Management	October 2010 – March 2011	1. Installed piling, and pier caps 2. Construction management and QA work	1. \$285,000.00 2. \$20,000.00

Item 4: Install abutments and concrete ballast deck sections

Task	Timelines	Milestones	Estimated Costs
Install abutments and concrete ballast deck sections Construction Management	April 2011	1. Installed bridge ready for track and surfacing. 2. Construction management and QA work	1. \$228,000.00 2. \$20,000.00

Item 5: Install track on bridge and surface

Task	Timelines	Milestones	Estimated Costs
Track installation and surfacing Construction Management	May 1-7, 2011	1. Re-installed track and open for traffic 2. Construction management and QA work	1. \$28,000.00 2. \$1,000.00

Item 6: Project close-out

Task	Timelines	Milestones	Estimated Costs
Project Closeout and final QA Permit Closeout	June/July 2011	Project closed	\$10,000.00

For questions, please call the State Hazard Mitigation Officer at 800.478.2337 or fax 907.428.7009